

<b>IMIVPR10</b>	<b>IMIVPR11</b>	<b>IMIARC11</b>
<b>Carry out spot repair activities on automotive vehicles</b>	<b>Carry out blend and fade out repairs on automotive vehicles</b>	<b>Carry out complete automotive refinishing operations</b>
This standard is about the ability to undertake spot repair activities, to ensure a repair blends with the existing finish. The repair area will be confined to a single panel.	This standard is about the ability to undertake blend and fade out repair activities, to ensure a repair blends with the existing finish. The repair area will consist of two or more panels.	This NOS is about the ability to undertake the complete vehicle refinishing process, including the preparation and application of foundation materials, on repaired and new vehicle panels
<b>Performance criteria</b>	<b>Performance criteria</b>	<b>Performance criteria</b>
You must be able to:	You must be able to:	You must be able to:
P1 wear suitable personal protective equipment and use the specified environmental safety equipment throughout all vehicle refinishing operations	P1 wear suitable personal protective equipment and use the specified environmental safety equipment throughout all vehicle refinishing operations	P1 wear suitable personal protective equipment and use the specified environmental safety equipment throughout all vehicle refinishing operations
P2 ensure vehicle is prepared appropriate to the substrate and technique being used prior to the spot repair process	P2 ensure vehicle is prepared appropriate to the substrate and technique being used prior to the blend/fade out process	
P3 support vehicle refinishing operations by reviewing:	P3 support vehicle refinishing operations by reviewing:	P2 support vehicle refinishing operations by reviewing:
P3.1 product data	P3.1 product data	P2.1 product data
P3.2 the vehicle manufacturer's technical data	P3.2 the manufacturer's technical data	P2.2 the vehicle manufacturer's technical data
P3.3 colour libraries	P3.3 colour libraries	P2.3 colour libraries
P3.4 spectrometer	P3.4 spectrometer	
P3.5 work instructions	P3.5 work instructions	P2.4 work instructions
P4 identify the body panel surfaces accurately prior to undertaking any refinishing work	P4 identify the body panel substrates accurately prior to undertaking any refinishing work	P3 identify the body panel substrates accurately prior to undertaking any vehicle refinishing work
P5 select, prepare, check and adjust all the tools and equipment required, following manufacturer's instructions, prior to use	P5 prepare, check and adjust all the tools and equipment required, following manufacturer's instructions, prior to use	P4 prepare, test and adjust all the tools and equipment required following manufacturer's instructions, prior to use
P6 prepare all the refinishing systems and materials required following health and safety requirements and using:	P6 prepare all the refinishing systems and materials required following health and safety requirements and using:	P5 prepare all the refinishing systems and materials required following health and safety requirements and using:
P6.1 materials which conform to the specification required	P6.1 materials which conform to the specification required	P5.1 materials which conform to the specification required
P6.2 the manufacturer's approved method and equipment	P6.2 the manufacturer's approved method	P5.2 the manufacturer's approved method
	P6.3 the manufacturer's approved equipment	P5.3 the manufacturer's approved equipment
		P6 ensure all paints you prepare meet the specification required for colour and viscosity prior to application
P7 P6 apply all refinishing systems and materials using approved tools and equipment and following:	P7 apply all refinishing systems and materials using approved tools and equipment and following:	P7 apply all refinishing systems and materials using approved tools and equipment and following:
P7.1 the manufacturer's instructions	P7.1 the manufacturer's instructions	P7.1 the manufacturer's instructions
P7.2 the correct methods and techniques	P7.2 the correct methods and techniques	P7.2 the correct methods and techniques
P7.3 the correct application techniques for managing colour and tone variables	P7.3 the correct application techniques for managing colour and tone variables	P7.3 the correct application techniques for managing colour and tone variables
P7.4 health and safety requirements	P7.4 health and safety requirements	P7.4 health and safety requirements
P8 identify the effects of static on the refinishing process, where applicable	P8 identify the effects of static on the refinishing process, where applicable	
P9 dry all refinishing applied materials following health and safety requirements and using:	P9 dry all refinishing applied materials following health and safety requirements and using:	P8 dry all refinishing applied materials following health and safety requirements and using:
P9.1 the manufacturer's approved method	P9.1 the manufacturer's approved method	P8.1 the manufacturer's approved method
P9.2 the manufacturer's approved equipment	P9.2 the manufacturer's approved equipment	P8.2 the manufacturer's approved equipment
P10 ensure the finished product:	P10 ensure the finish produced:	P9 ensure the finish produced:
P10.1 meets the requirements of the manufacturer's warranty	P10.1 meets the requirements of the manufacturer's warranty	P9.1 meets the requirements of the manufacturer's warranty
P10.2 meets the refinishing specification required and customer needs	P10.2 meets the refinishing specification required and customer needs	P9.2 meets the refinishing specification required and customer needs
P10.3 blends with the existing finish	P10.3 blends with the existing finish	P9.3 blends with the existing finish
P10.4 is free from contaminants and defects	P10.4 is free from contaminants and defects	P9.4 is free from contaminants and defects
P11 dispose of waste materials to conform with legal and workplace requirements	P11 dispose of waste materials to conform with legal, environmental and workplace requirements	P10 dispose of waste materials to conform with legal, environmental and workplace requirements
P12 leave tools, equipment and work environment in a clean and serviceable condition, as appropriate	P12 leave tools, equipment and work environment in a clean and serviceable condition, as appropriate	
P13 complete all refinishing activities within the agreed timescale	P13 complete all refinishing activities within the agreed timescale and to an agreed quality control process	P11 complete all refinishing activities within the agreed timescale
P14 promptly report any anticipated delays in completion to the relevant person(s)	P14 promptly report any anticipated delays in completion to the relevant person(s)	P12 report any anticipated delays in completion to the relevant person(s)
<b>Knowledge and understanding</b>	<b>Knowledge and understanding</b>	<b>Knowledge and understanding</b>
You need to know and understand:	You need to know and understand:	You need to know and understand:
		<b>Legislative and organisational requirements and procedures</b>

K1 the health and safety and environmental legislative requirements specific to vehicle refinishing operations and why it is important that these are followed	K1 the health and safety and environmental legislative requirements specific to vehicle refinishing operations and why it is important that these are followed	K1 the health and safety and environmental legislative requirements specific to vehicle refinishing operations and why it is important that these are followed
K2 workplace procedures and workshop practices relevant to personal and vehicle protection before, during and after vehicle refinishing operations	K2 workplace procedures and workshop practices relevant to personal and vehicle protection before, during and after vehicle refinishing operations	K2 workplace procedures and workshop practices relevant to personal and vehicle protection before, during and after vehicle refinishing operations
K3 the importance of disposing of waste safely and the consequences of not doing so to the business, others and the environment	K3 the importance of disposing of waste safely and the consequences of not doing so to others, the business and the environment	K3 the importance of disposing of waste safely and the consequences of not doing so to others, the business and the environment
K4 the vehicle work specification agreed	K4 the vehicle work specification agreed	K4 the vehicle work specification agreed
K5 your workplace procedures for:	K5 your workplace procedures for:	K5 your workplace procedures for:
K5.1 the referral of problems	K5.1 the referral of problems	K5.1 the referral of problems
K5.2 reporting delays to the completion of work	K5.2 reporting delays to the completion of work	K5.2 reporting delays to the completion of work
K5.3 personal protection	K5.3 personal protection	K5.3 personal and vehicle protection
K6 the importance of working to agreed timescales and keeping others informed of progress	K6 the importance of working to agreed timescales and keeping others informed of progress	K6 the importance of working to agreed timescales and keeping others informed of progress
K7 the relationship between time, cost and productivity	K7 the relationship between time, cost and productivity	K7 the relationship between time, cost and profitability
K8 the importance of promptly reporting anticipated delays to the relevant person(s) promptly	K8 the importance of promptly reporting anticipated delays to the relevant person(s)	K8 the importance of reporting anticipated delays to the relevant person(s) promptly
		<b>Tools and equipment</b>
K9 how to select, prepare, check, adjust and use all the tools and equipment required for vehicle refinishing operations	K9 how to prepare, check, adjust and use all the tools and equipment required for vehicle refinishing operations	K9 how to prepare, test, adjust and use all the tools and equipment required for vehicle refinishing operations
K10 spray gun faults, their cause and their rectification	K10 spray gun faults, their cause and their rectification	K10 spray gun faults, their cause and their rectification
		<b>Materials</b>
K11 how to prepare refinishing systems and materials for use	K11 how to prepare refinishing systems and materials for use	K11 how to prepare refinishing systems and materials for use
K12 the properties of refinishing systems and materials and the factors affecting their use	K12 the properties of refinishing systems and materials and the factors affecting their use	K12 the properties of refinishing systems and materials and the factors affecting their use
		<b>Foundation and top coat preparation</b>
K13 how to recognise damage to surfaces and ancillary fittings	K13 how to recognise and report damage to substrates and ancillary fittings	K13 how to recognise damage to substrates and ancillary fittings
		K14 how to recognise substrates
		K15 how the substrate affects the preparation process
K14 how to interpret manufacturer's preparation schedules	K14 how to interpret manufacturer's technical data	K16 how to interpret manufacturer's preparation schedules
		K17 how to prepare new and repaired panels using appropriate methods and techniques
		K18 how to carry out masking procedures to avoid material wastage and vehicle contamination for each stage of the preparation process
K15 how to prepare panels and parts adjacent to the area being painted	K15 how to prepare panels and parts adjacent to the area being painted	K19 how to prepare panels and parts adjacent to the area being refinished
		K20 the factors governing the choice of panel preparation methods for the substrate identified
		K21 the types and grades of available abrasives and the factors governing their use for different substrates
K16 methods of protecting panels and parts adjacent to the areas being painted and the circumstances in which they should be used	K16 methods of protecting panels and parts adjacent to the areas being painted and the circumstances in which they should be used	K22 methods of protecting panels and parts adjacent to the areas being painted and the circumstances in which they should be used
		K23 methods and techniques of masking (including paper and sheet masking) and the circumstances in which they should be used
K22 the implications of static when working with spot repair process	K22 the implications of static when working with blend/fade out process	K24 the implications of static when working with plastic components
		K25 the implications of not following the correct abrasive process and its effect on the overall quality process
		K26 the importance of using and how to use extraction equipment
		K27 the implications of cross-contamination of dissimilar metals when using abrasive and extraction equipment
		<b>Preparation and application of foundation materials</b>
		K28 how to find, interpret and use sources of information relevant to the mixing and application of foundation coatings
		K29 how to condition and clean substrates prior to the application of foundation coats
		K30 how to rectify substrate defects
		K31 how to apply foundation coatings
		K32 how to avoid application defects
		K33 how to dispose of waste foundation materials following environmental requirements

		K34 the importance of viscosity and its effect on the substrate finish
		K35 the importance of proper cleaning and using the correct foundation material to ensure adequate adhesion of the refinishing system
		K36 the manufacturer's approved instructions for working when applying foundation materials
		K37 the importance of using and how to use extraction equipment
		<b>Applying top coats</b>
K17 how to find, interpret and use sources of information relevant to the refinishing of vehicles	K17 how to find, interpret and use sources of information relevant to the refinishing of vehicles	K38 how to find, interpret and use sources of information relevant to the refinishing of vehicles
K18 how to apply top coat materials using spot repairs, avoiding contamination and defects	K18 how to apply top coat materials using fade out and blending techniques avoiding contamination and defects	K39 how to apply top coat materials using application techniques avoiding contamination and defects
		K40 how to dry top coats
		K41 how to assess and evaluate colour match, blending and the final finish
K19 how to dispose of waste materials in compliance with any environmental requirements/legislation and workplace procedures	K19 how to dispose of waste materials in compliance with any environmental requirements/legislation and workplace procedures	K42 how to dispose of waste materials following environmental requirements
K20 how to work safely avoiding damage to vehicles, personal injury and injury to colleagues	K20 how to work safely avoiding damage to vehicles, personal injury and injury to colleagues	K43 how to work safely avoiding damage to vehicles, personal injury and injury to colleagues
K23 how to minimize the spray area when carrying out spot repairs		K44 how to minimise the spray area when carrying out spot repairs
K24 the effect of the spray environment and natural environment on vehicle finishes		K45 the effect of the spray environment and natural environment on vehicle finishes
		K46 how application can affect colour variation and tone
K21 the importance of following technical instructions and using approved methods of working (including the use of refinishing systems, materials and equipment)		
K25 the importance of following manufacturers' instructions and using their approved methods of working (including the use of refinishing systems and materials and equipment)	K21 the importance of following manufacturer's instructions and using their approved methods of working (including the use of refinishing systems, materials and equipment)	K47 the importance of following manufacturer's instructions and using their approved methods of working (including the use of refinishing systems and materials and equipment)
K26 the consequences of failing to follow manufacturers' instructions.		K48 the consequences of failing to follow manufacturer's instructions
		K49 the importance of using and how to use extraction equipment
K27 the importance of working to agreed timescales and keeping others informed of progress and delays		
K28 the implications of not following an agreed quality control process	K23 the implications of not following an agreed quality control process	
		<b>Scope/range</b>
		<b>1 Vehicle refinishing operations covers:</b>
		1.1. preparation
		1.2. application
		1.3. drying
		1.4. polishing
		<b>2 Tools and equipment are:</b>
		2.1. polishing machines
		2.2. denibbing blocks
		2.3. flattening equipment
		2.4. masking material dispensers
		2.5. dust extraction
		2.6. paint mixing and application equipment
		2.7. viscosity measuring equipment
		2.8. air supply equipment
		2.9. spray booth
		2.10. drying equipment
		<b>3 Refinishing systems and materials are:</b>
		3.1. compounds
		3.2. flattening papers
		3.3. polishes
		3.4. etch primers

	3.5. fillers
	3.6. surfacers
	3.7. anti-stone chip treatments
	3.8. anti-corrosion treatments
	3.9. cleaning agents
	3.10. conditioning agents
	3.11. adhesion promoters
	3.12. metallic clear over base paints
	3.13. non-metallic clear over base paint
	3.14. mica clear over base paints
	3.15. dilutants
	3.16. tinters
	3.17. additives
	3.18. hardeners
	<b>4 Application techniques are:</b>
	4.1. edge to edge
	4.2. fade out
	4.3. blending colour into adjacent panels
	4.4. spot repair
	<b>5 Substrates are:</b>
	5.1. electro-coated panels
	5.2. repaired panels
	5.3. original manufacturer's finish
	5.4. plastic components
	5.5. zinc coated panels
	5.6. steel panels
	5.7. aluminium panels
	5.8. composite panels
	5.9. previously primed panels
	<b>6 Methods and techniques are:</b>
	6.1. de-greasing
	6.2. flattening
	6.3. burnishing
	6.4. removing materials to a sound substrate
	6.5. feathering out
	6.6. masking
	6.7. recoating
	6.8. polishing
	6.9. plastic preparation
	6.10. tack off